# PAUL B. HABANS ELEMENTARY SCHOOL DAC SUBMITTAL

**JULY 25, 2014** 















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DAC Application | July 25, 2014

Prepared by GraceHebert Architects, APAC

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#### **PROJECT OVERVIEW & GOALS**

## **Prologue**

The following information was compiled for the Design Advisory Committee Application for their review. This document demonstrates the design response to the contextual influences of the site while providing a facility that is both low maintenance and energy efficient to serve the programmatic needs of the Recovery School District for years to come.

#### Introduction

The project consists of the design and construction of a new approximately 107,950 sf elementary school to accommodate roughly 788 students. The facility will house grades Pre-K through 8th grade with three classrooms per grade, special education classrooms, two flexible teaching rooms, an art classroom, a music classroom, two science classrooms and a science lab. The gymnasium, cafeteria, and media center will also be accessible to the public.

## Site Design

The site has been arranged to be complimentary to traffic flow surrounding the site. The bus drop-off entry has been located on Seine Drive and runs through the site exiting onto Bender Drive where bus traffic can continue to collector streets and arterial roadways. The carpool line will enter and exit on Texas Drive. Staff parking makes up the majority of the parking on the site, and therefore has been located off of Seine Drive where it is least visible from residential areas since it faces the rear of an existing building. Visitor parking is located off of the carpool drive along Texas Drive. The play fields are located on the south end of the site closest to an existing apartment building. Existing mature trees are being preserved where possible within the play areas but have been removed to make room for the students' play field area. An outdoor classroom area is proposed at an existing cypress tree cluster and will be used to teach the importance of the natural ecosystem in the New Orleans area.

## **Building Design**

The building layout has been designed to accommodate separation of learning areas, including public vs. classroom, noisy vs. quiet learning, and separation of younger students from older students. The exterior building materials are proposed to be primarily masonry, composite metal panel and aluminum storefront systems to increase durability of the exterior façade. The interior building materials are proposed to include terrazzo flooring, vinyl composition tile flooring, painted gypsum board walls, painted CMU walls, painted gypsum board ceilings, acoustical tile ceilings, and acoustical or specialty finish treatments where applicable.

The proposed elementary school facility will feature three classrooms per grade for grades Pre-Kindergarten through 8th grade. Spaces will be provided for a music/theater room, an art classroom, two science classrooms, a science lab, two special education classrooms, and two flex classrooms. Other spaces will include the media center, gymnasium/stage, cafeteria, various administrative areas, teacher workrooms, and two additional rooms for continuing education for teachers or flex space for student classes. The gymnasium, cafeteria, media center and potentially the music/theatre will also be accessible to the public while secured from the remainder of the school. Below outlines an approximate square footage allotment of the spaces:



Areas	Count	Quantity	Unit	NSF
Core Academic Areas				
Pre-K & Kindergarten Classroom	6	900	NSF	5,400
Pre-K & Kindergarten Restroom	4	60	NSF	240
Grades 1 - 8 Classroom	24	850	NSF	20,400
Grades 6-8 Science Classroom	2	950	NSF	1,900
Grades 6-8 Science Lab & Storage	1	1,400	NSF	1,400
Teacher Workroom & Storage	3	320	NSF	960
TOTAL				30,300
Special Education				
Special Education Classroom & RR	2	1,050	NSF	2,100
Flex Classroom	2	850	NSF	1,700
Speech Services	2	150	NSF	300
OT/PT/APE Room	1	200	NSF	200
Storage Room	1	75	NSF	75
TOTAL				4,375
Library/Media Center				
Library/Media Center Main Room	1	3,400	NSF	3,400
Professional Development Room	1	850	NSF	850
Teacher Reference Room	1	150	NSF	150
Office/Workroom/Storage/Restroom	1	360	NSF	360
TOTAL				4,760
Visual Arts				
Art Classroom	1	1,200	NSF	1,200
Kiln Room	1	125	NSF	125
Storage Room	1	125	NSF	125
TOTAL				1,450
Exploratories				
Flexible Exporatories Classroom	1	850	NSF	850
TOTAL				850
Music/Performing Arts				
Music/Choir Room/Performance	1	2,400	NSF	2,400
Performing Arts Office	2	100	NSF	200
Practice Room	2	65	NSF	130
Music Storage	1	100	NSF	100
Instrument Storage	1	200	NSF	200
Chair Storage	1	200	NSF	200
Riser Storage	1	200	NSF	200
TOTAL				3,430



Stage	1	600	NSF	600
Chair Storage	1	400	NSF	400
PE/Storage	2	300	NSF	600
Office	2	120	NSF	240
Locker Room/Restroom/Showers	2	600	NSF	1,200
Laundry	1	125	NSF	125
Concessions	1	200	NSF	200
TOTAL				12,765
Welcome Center/Administration				
Entrance Lobby	1	200	NSF	200
Waiting/Reception	1	200	NSF	200
Offices	4	148	NSF	590
Conference Room	1	300	NSF	300
Success Center	1	425	NSF	425
Lounge/Workroom/Storage	1	650	NSF	650
Restroom	2	60	NSF	120
TOTAL				2,485
Student Services				
Guidance Reception	1	200	NSF	200
Offices	6	125	NSF	750
Records Storage/Restroom	1	210	NSF	210
Health Clinic	1	405	NSF	405
TOTAL				1,565
Food Service				
Kitchen	1	2,950	NSF	2,950
Student Dining	1	4,500	NSF	4,500
TOTAL				7,450
Custodial/Maintenance				
Receiving/Storage/Maintenance	1	1,000	NSF	1,000
Office/Lockers/Storage/Restroom	1	270	NSF	270
TOTAL				1,270
BUILDING NSF TOTAL				70,700
BUILDING GSF TOTAL				107,950



### **LEED Design**

The project will be designed to achieve LEED Silver under LEED 2009 for Schools New Construction and Major Renovations. To achieve this, the site will be designed to accommodate alternate transportation including access to public transportation systems, providing bicycle racks and changing rooms, and encouraging the use of fuel-efficient vehicles through priority parking. The site will utilize native growing planting materials and trees to reduce water use for landscaping purposes. Mechanical systems will be designed to achieve 28% greater efficiency than the current standard, reducing energy consumption, and the system will be commissioned to assure the Owner that it is operating at the highest efficiency. Materials for the building's interior and exterior finishes will be selected based on their regional availability, recycled content and low VOC emission qualities in addition to their aesthetic. Construction waste materials will be collected and sorted to be recycled rather than brought to a landfill. The interior will be designed to achieve maximum environmental quality including the use of daylighting in regularly occupied spaces, controllability of lighting, and maximizing thermal comfort and controllability within practicality for the building use.

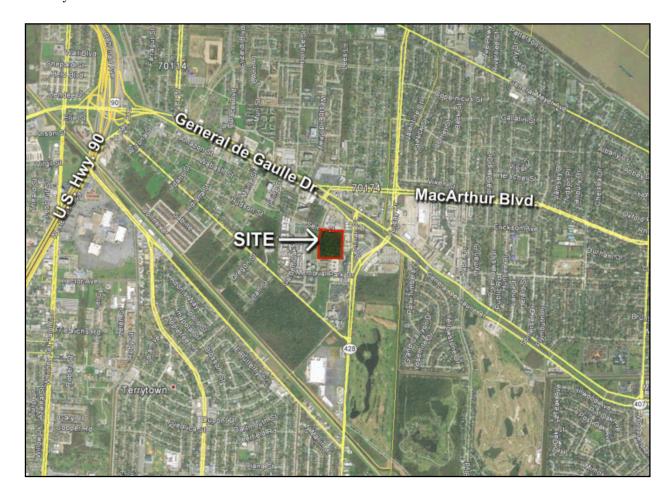


## **CONTEXTUAL INFORMATION**

## **Site Aerials**

The proposed Paul B. Habans Elementary School is located at 3501 Seine St. in New Orleans, La. The site is bounded by Seine St. to the north, Bender Dr. to the east, Texas Dr. to the west, and a residential apartment building to the south.

## Vicinity Aerial





## Site Aerial



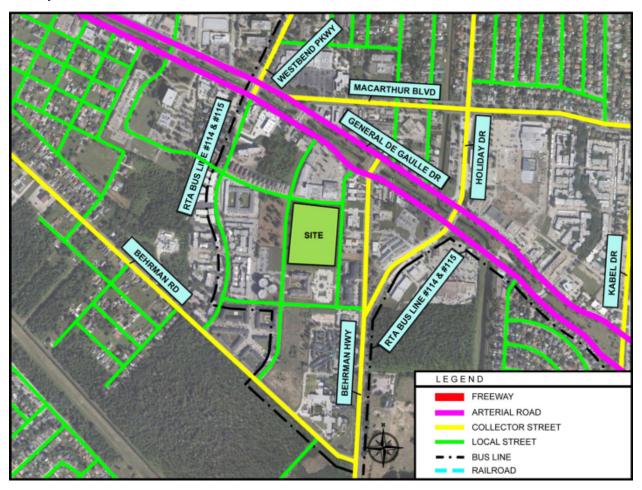


## **CONTEXTUAL INFORMATION**

## **Context Maps**

The following illustrations diagram vehicular patterns, zoning uses, etc. in close proximity to the Paul B. Habans site. These factors have been analyzed to influence the overall site layout, including but not limited to locating the bus drop-off, carpool line, parking and play fields.

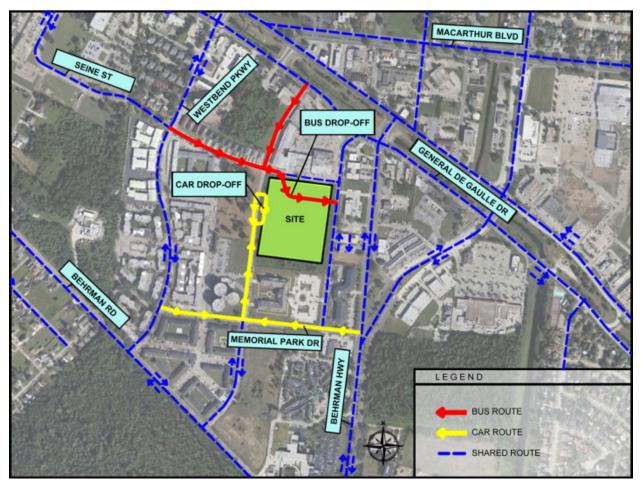
## Vicinity Traffic



Showing traffic types around project site



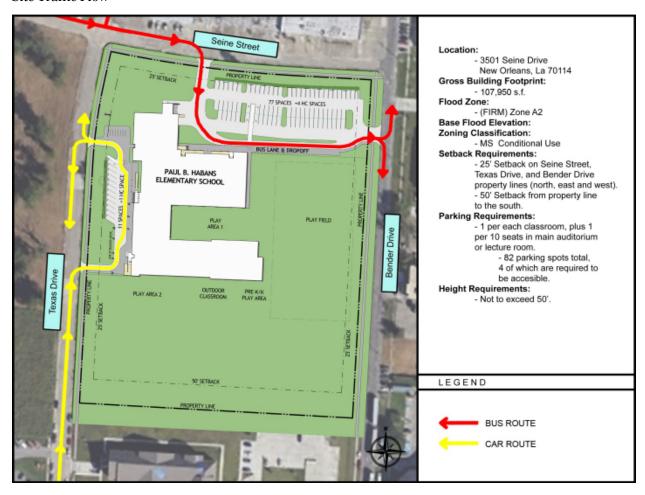
## Vicinity Traffic Flow



Showing proposed car and bus traffic



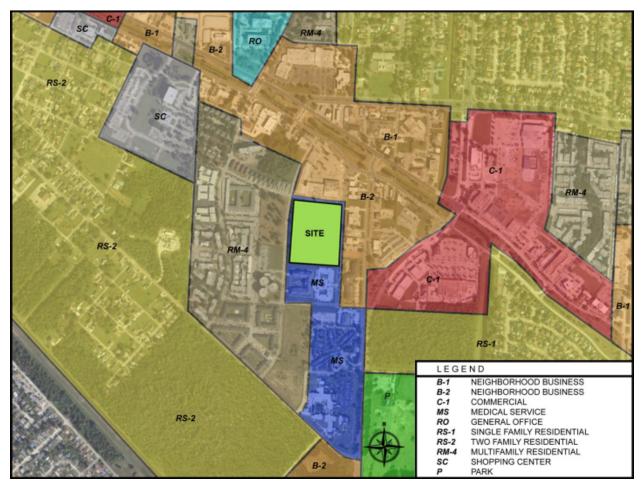
#### Site Traffic Flow



Showing Car and Bus Traffic through Site



## Vicinity Zoning



Showing zoning around project site



## **Site Photographs**

The site is currently undeveloped and is located in a predominantly commercial area consisting of retail, office and medical facilities. There are numerous multi-family residential developments in close proximity, including one adjacent to the site on its south end.





1. At the corner of Seine Drive and Texas Drive lookingEast toward Seine Drive.

2. At the corner of Seine Drive and Texas Drive looking South toward Texas Drive.



3. At the corner of Seine Drive and Bender Drive looking West toward Seine Drive.



4. At the corner of Seine Drive and Bender Drive looking South toward Bender Drive.





5. View of building located opposite northern half of site along Bender Drive.



6. View of building located opposite sothern half of site along Bender Drive.



7. View of building opposite southeast corner of site along Bender Drive.



8. Rear of buildings located opposite of site on East end of Seine Drive.



9. Buildings located opposite of site on West end of Seine Drive.



10. Buildings located opposite corner of site at intersection of Texas Drive and Seine Drive.





11. At Southeast corner of site on Bender Drive looking North toward Bender Drive.



 At Southeast corner of site on Bender Drive looking toward West. On the left is the fence enclosing Oak Villa Aartments.



8. Oak Villa Apartments located directly South of the site.



9. At Southwest corner of site looking North toward Texas Drive.



10. At Southwest corner of site on Texas Drive looking toward East. On the right is the fence enclosing Oak Villa Apartments.



11. At Southwest corner of site on Texas Drive looking toward Northeast.



### **DRAWINGS**

## Site Plan w/ Parking & Lighting

The site plan identifies areas of the site to be used for visitor parking, staff parking, carpool drop-off, bus drop-off, and vehicular and pedestrian circulation. Areas to be used for age grouped play areas are identified along with an area designated for a playing field for ball games. The plan identifies signage, bike rack, flag pole, and exterior lighting locations.

### Landscape Plan

The landscape plan portrays an illustrative layout of required plantings based on zoning and code requirements. Also shown are existing trees to be protected and preserved throughout construction.

#### 1st Floor Plan

The proposed first floor plan identifies the locations of the administrative offices, cafeteria, gymnasium, Pre-K through 2<sup>nd</sup> grade classrooms, and miscellaneous related spaces serving the proposed elementary school. The cafeteria and gymnasium will be accessible to the general public while secured from the remainder of the school.

#### 2nd Floor Plan

The proposed second floor plan identifies the locations of the media center, music/theater room, art room, 3<sup>rd</sup> through 4<sup>th</sup> grade classrooms, administrative offices, and miscellaneous related spaces serving the proposed elementary school. The media center and potentially the music/theatre room will be accessible to the general public while secured from the remainder of the school.

### 3rd Floor Plan

The proposed third floor plan identifies the locations of the 5<sup>th</sup> through 8<sup>th</sup> grade classrooms, science classrooms, science lab and miscellaneous related spaces serving the proposed elementary school.

#### **Exterior Building Elevations**

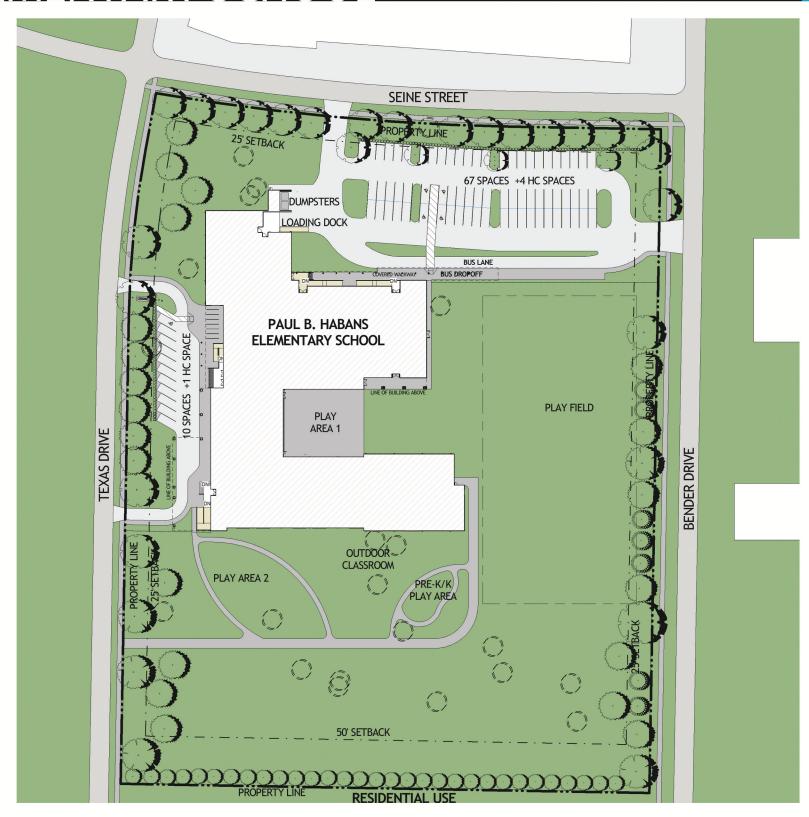
The included exterior elevations are included to convey the design intent for the massing, materials, and color scheme of the proposed design.

#### Renderings

The included rendering are included to convey the design intent for the massing, materials, and color scheme of the proposed design.

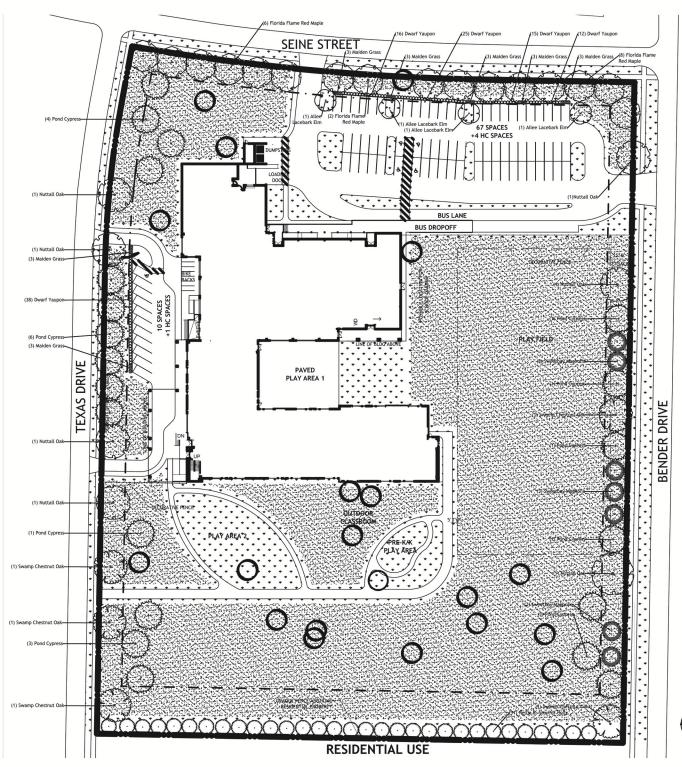








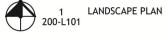




PLANT S	CHEDI	JLE				
TREES	QTY	COMMON NAME	BOTANICAL NAME	CONT	CAL	SIZE
0	31	Nellie R. Stevens Holly	llex x 'Nellie R. Stevens'	15 gal	1½" cal	5-6' height
	18	Florida Flame Red Maple	Acer rubrum 'Florida Flame'		2-2½" cal.	10-12' height
0	7	Sweetbay Magnolia	Magnolia virginiana	30 gal	multi 2"	8-10' height
	5	Swamp Chestnut Oak	Quercus michauxii		2-2½" cal.	10-12' height
	7	Nuttall Oak	Quercus nuttallii		2-2½" cal.	10-12' height
A CANAL CONTRACTOR	21	Pond Cypress	Taxodium ascendens		2-2½" cal.	10-12' height
$\bigcirc$	4	Allee Lacebark Elm	Ulmus parvifolia 'Allee'		2-2½" cal.	10-12' height
SHRUBS	QTY	COMMON NAME	BOTANICAL NAME	CONT	CAL	SIZE
0	21	Maiden Grass	Miscanthus sinensis 'Gracillimus'	3 gal		
0	107	Rubens Photinia	Photinia glabra 'Rubens'	3 gal		
GROUND COVER	QTY	COMMON NAME	BOTANICAL NAME	CONT	NOT	ES
	199,941 sf	Bermuda Grass Seed Hydroseed	Cynodon Dactylon	seed		
	48,549 sf	Bermuda Grass Sod Class A Sod	Cynodon Dactylon	sod		
	1,999 sf	Pine Needle Mulch	Pine Mulch	Mulch	shr be	
	1,999 sf	Bed Builder	Planting Soil	Soil	shr be	

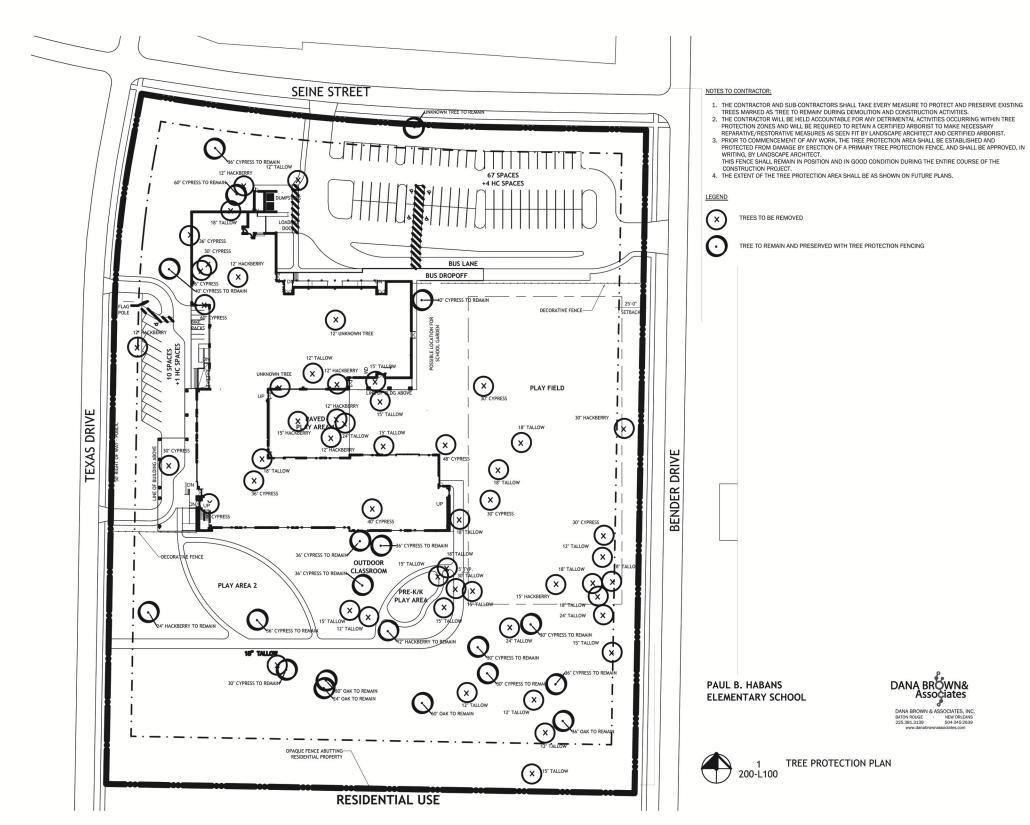






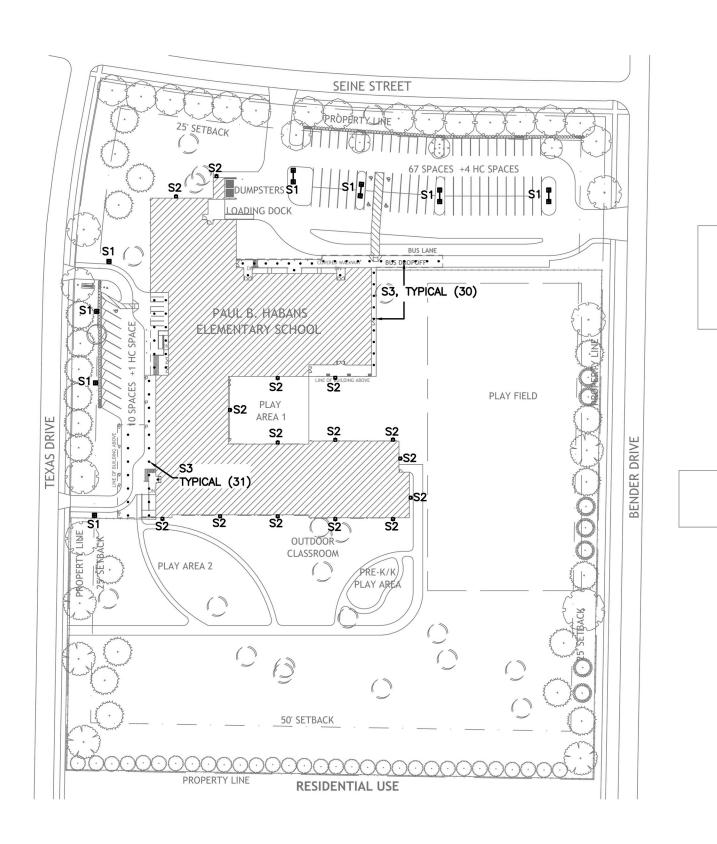


















NOTE: ALL STRUCTURAL ELEMENTS TO BE STRUCTURAL STEEL. COLUMNS TO BE CONCEALED BY STUDS, GYP BOARD AND FINISHES.

## PROGRAM LEGEND

ADMINISTRATION

BUILDING SUPPORT

CAFETERIA

CORE ACADEMIC

CORRIDOR

CUSTODIAL/MAINTENANCE

FOOD SERVICES

GYM

RESTROOM

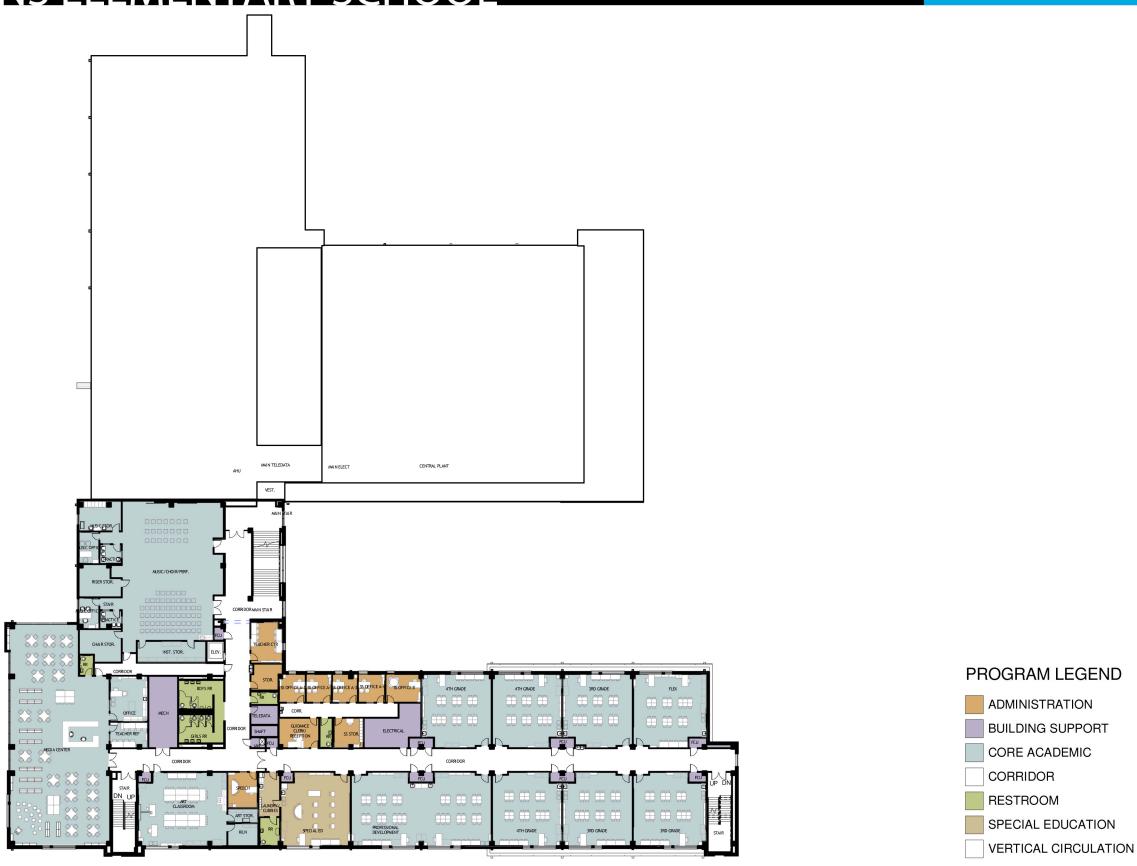
SPECIAL EDUCATION

STUDENT SERVICES

VERTICAL CIRCULATION









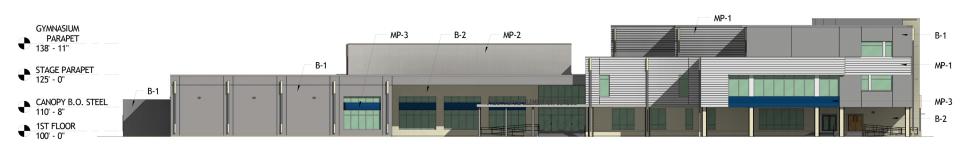








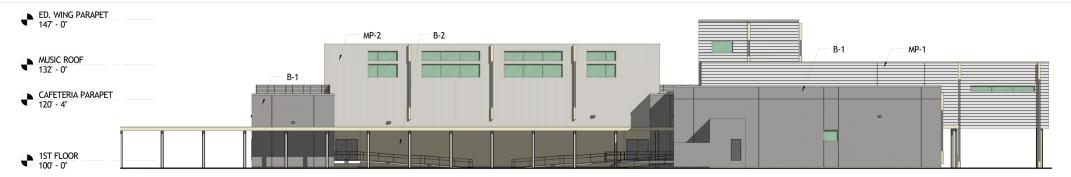




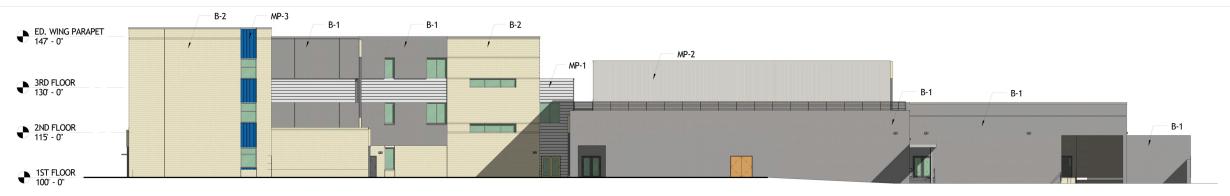
### **ELEVATION KEY NOTES**

- B-1 MASONRY UNIT, EBONY
- B-2 MASONRY UNIT, MUSHROOM BROWN
- MP-1 METAL WALL PANEL, HORIZONTAL COLOR 1
- MP-2 METAL WALL PANEL, VERTICAL COLOR 2
- P-3 METAL WALL PANEL, HORIZONT

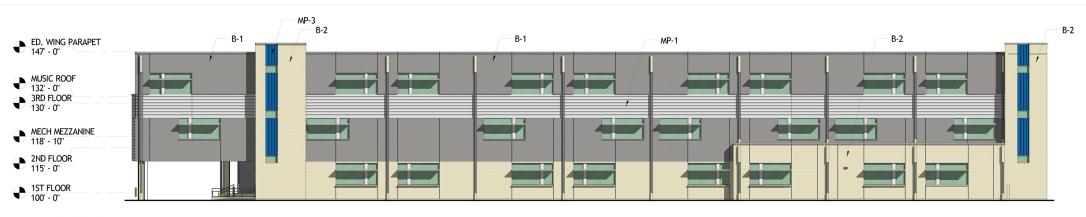
## **WEST BUILDING ELEVATION**



## **NORTH BUILDING ELEVATION**



## **EAST BUILDING ELEVATION**



## **SOUTH BUILDING ELEVATION**



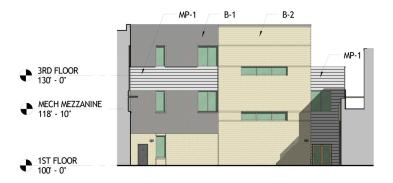




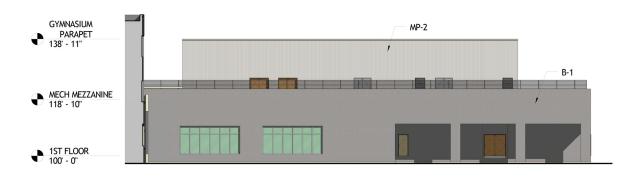
### **ELEVATION KEY NOTES**

- B-1 MASONRY UNIT, EBONY
- B-2 MASONRY UNIT, MUSHROOM BROWN
- MP-1 METAL WALL PANEL, HORIZONTAL COLOR 1
- MP-2 METAL WALL PANEL, VERTICAL COLOR 2
- MP-3 METAL WALL PANEL, HORIZONTAL/VERTICAL COLOR 3

## SOUTH COURTYARD ELEVATION



## **EAST COURTYARD ELEVATION**



## NORTH COURTYARD BUILDING ELEVATION





















## **BUILDING MATERIALITY**

### **Exterior Building Materials:**

The following building materials represent the current basis of design selections and are intended to convey the overall aesthetic of the proposed Paul B. Habans Elementary School. Please note that exact selections of building materials are subject to change based on budget and availability as the project progresses. Physical samples are provided as part of this submission.

#### **Exterior Masonry:**

- Brick 1: Acme Brick, Denton Plant, Color: Ebony
- Brick 2: Acme Brick, Denton Plant, Color: Mushroom Brown

#### Metal Wall Panel:

- Metal Panel 1: Pac-Clad Reveal Wall Panel, Color: Pac-Clad, Cityscape
- Metal Panel 2: Berridge Standard L-Panel, Color: Pac-Clad, Cityscape
- Metal Panel 3: Berridge Standard L-Panel, Color: Sheffield Metals, Slate Blue

### Aluminum Storefront/Curtainwall Systems:

• Aluminum Storefront/Curtainwall: Kawneer/Traco, Color: Clear Anodized Aluminum, Glazing: Insulated glazing unit with Low-E coating.

#### Railing Systems:

- Stainless steel handrails and guardrails at all primary public entrances.
- Hot-dipped galvanized handrails and guardrails at all other public entrances.

#### **Roofing Systems:**

Soprema Soprastar SBS elastomeric bitumen roofing with min. 2% slope.

#### **Exterior Door Systems:**

Hollow Metal Doors and Frames, Color: TBD

### Site Lighting:

The following site lighting fixtures represent the current basis of design selections. Please note that exact selections of lighting fixtures are subject to change based on budget and availability as the project progresses.

#### **Exterior Lighting:**

- S1 (light poles): McGraw-Edison, The Galleon LED luminaire
- S2 (wall mounted lighting): Invue, Entri LED Round Reveals luminaire
- S3 (can lights): Portfolio, LD6A10/LD6A15/6LM, 6" LED medium beam down-light

#### DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated.

## McGRAW-EDISON®



Catalog #	Туре
Project	
Comments	Date
Prepared by	

#### **SPECIFICATION FEATURES**

#### Construction

Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, diecast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested. Optional toolless hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

#### Optics

Choice of 16 patented, highefficiency AccuLED Optics. The optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 6000K CCT and 3000K CCT. For the ultimate level of spill light control, an optional house side shield accessory can

be field or factory installed. The house side shield is designed to seamlessly integrate with the SL2, SL3, SL4 or AFL optics.

#### **Electrical**

LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Standard with 0-10V dimming. Shipped standard with Cooper Lighting proprietary circuit module designed to withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Light Squares are IP66 rated. Greater than 90% lumen maintenance expected at 60,000 hours. Available in standard 1A drive current and optional 530mA and 700mA drive currents.

#### Mounting

Extruded aluminum arm includes internal bolt guides allowing for

easy positioning of fixture during assembly. Designed for pole or wall mounting. When mounting two or more luminaires at 90° or 120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table on page 3. Round pole top adapter included. For wall mounting, specify wall mount bracket option. 3G vibration rated.

#### **Finish**

Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic, RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

#### Warranty

Five-year warranty.



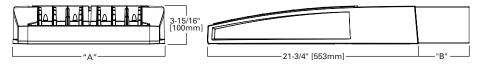
## **GLEON GALLEON LED**

1-10 Light Squares Solid State LED

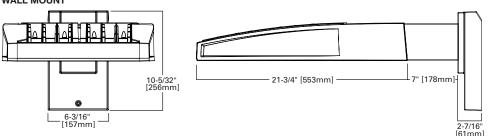
AREA/SITE LUMINAIRE

### **DIMENSIONS**

#### **POLE MOUNT**



#### WALL MOUNT



#### DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length <sup>1</sup>	Weight with Arm (lbs.)	EPA with Arm <sup>2</sup> (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	33 (15.0 kgs.)	0.96
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	44 (20.0 kgs.)	1.00
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	54 (24.5 kgs.)	1.07
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	63 (28.6 kgs.)	1.12

NOTES: 1 Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table. 2 EPA calculated with optional arm length.





#### CERTIFICATION DATA

UL/cUL Wet Location Listed ISO 9001 LM79 / LM80 Compliant 3G Vibration Rated IP66 Rated DesignLights Consortium® Qualified\*

#### **ENERGY DATA**

Electronic LED Driver >0.9 Power Factor <20% Total Harmonic Distortion 120V-277V 50/60Hz

347V & 480V 60Hz -40°C Min. Temperature 40°C Max. Temperature

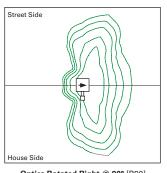
50°C Max. Temperature (HA Option)

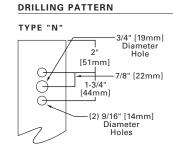


#### **OPTIC ORIENTATION**

# Street Side House Side

Street Side



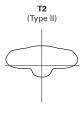


Standard

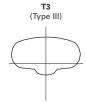
Optics Rotated Left @ 90° [L90]

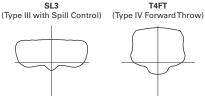
Optics Rotated Right @ 90° [R90]

#### **OPTICAL DISTRIBUTIONS**

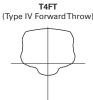


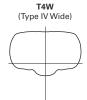




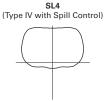


Asymmetric Area Distributions





Symmertric Distributions



**Asymmetric Roadway Distributions** T2R

(Rectangular Wide Type I)

RW





T3R



5NQ 5MQ (Type V Square Medium)

(Type V Square Wide)

5WQ

AFL



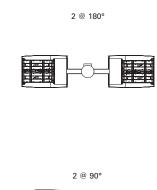


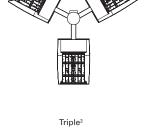
Specialized Distributions

SLR (90° Spill Light Eliminator Right)

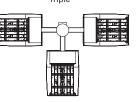
ARM MOUNTING REQUIREMENTS

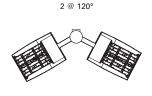
Configuration	90° Apart	120° Apart
GLEON-AE-01	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-02	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-03	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-04	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-05	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-06	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-07	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-08	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-09	16" Extended Arm (Required)	16" Extended Arm (Required)
GLEON-AE-10	16" Extended Arm (Required)	16" Extended Arm (Required)





Triple<sup>1</sup>





4 @ 90°



Eaton 1000 Eaton Boulevard Cleveland, OH 44122 United States Eaton.com

**Eaton's Cooper Lighting Business** 1121 Highway 74 South Peachtree City, GA 30269 P: 770-486-4800 www.cooperlighting.com

#### **LUMEN MULTIPLIER**

#### Ambient Lumen Multiplier Temperature 0°C 1.02 1.01 25°C 1.00 40°C 0 99 50°C 0.97

#### **LUMEN MAINTENANCE**

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C	> 90%	> 170,000

#### ORDERING INFORMATION

Sample Number: GLEON-AE-04-LED-E1-T3-GM-700

Product Family 1	Light Engine	Number of Light Squares <sup>2</sup>	Lamp Type	Voltage	Distribution	Color	Mounting
<b>GLEON</b> =Galleon	AE=1A Drive Current	01=1 02=2 03=3 04=4 05=5 06=6 07=7 08=8 09=9 10=10	<b>LED</b> =Solid State Light Emitting Diodes	E1=120-277V 347=347V <sup>3</sup> 480=480V <sup>3</sup>	T2=Type II T2R=Type II Roadway T3=Type III Roadway T3R=Type III Roadway T4FT=Type IV Forward Throw T4W=Type IV Wide 5NQ=Type V Narrow 5MQ=Type V Square Medium 5WQ=Type V Square Wide SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control SL4=Type IV w/Spill Control SL4=D0° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right RW=Rectangular Wide Type I AFL=Automotive Frontline	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White	[Blank]=Arm for Round or Square Pole EA=Extended Arm <sup>4</sup> MA=Mast Arm Adapter <sup>5</sup> WM=Wall Mount

#### Options (Add as Suffix)

2L=Two Circuits 6,7 7030=70 CRI 3000K 7060=70 CRI 6000K8

530=Drive Current Factory Set to 530mA9

**700**=Drive Current Factory Set to 700mA <sup>9</sup> **P**=Button Type Photocontrol (120, 208, 240 or 277V)

PER7=NEMA 7-Pin Twistlock Photocontrol Receptacle

R=NEMA Twistlock Photocontrol Receptacle

HA=50°C High Ambient 7

MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height 10, 11, 12, 13 MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height <sup>10, 11, 12, 13</sup>
MS/DIM-L40=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height <sup>10, 11, 12, 13</sup>
MS/X-L08=Bi-Level Motion Sensor, Maximum 8' Mounting Height <sup>10, 11, 12, 13</sup>

MS/X-L20=Bi-Level Motion Sensor, 9' - 20' Mounting Height 10, 11, 12, 13

DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height 14

DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height 14

L90=Optics Rotated 90° Left R90=Optics Rotated 90° Right

MT=Factory Installed Mesh Top

TH=Tool-less Door Hardware

LCF=Light Square Trim Plate Painted to Match Housing 15

HSS=Factory Installed House Side Shield 16

#### Accessories (Order Separately)

OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V

OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V

OA/RA1013=Photocontrol Shorting Cap

OA/RA1014=120V Photocontrol

MA1252=10kV Surge Module Replacement

MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon MA1037-XX=2 @ 180° Tenon Adapter for 2-3/8" O.D. Tenon MA1197-XX=3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon

MA1188-XX=4 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon

MA1189-XX=2 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1190-XX=3 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1191-XX=2 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon

MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon MA1039-XX=2 @ 180° Tenon Adapter for 3-1/2" O.D. Tenon MA1192-XX=3 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon MA1193-XX=4 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon

MA1194-XX=2 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1195-XX=3 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon

FSIR-100=Wireless Configuration Tool for Occupancy Sensor 17 GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares

GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares

GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares

LS/HSS=Field Installed House Side Shield 16, 18

- DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
   Standard 4000K CCT and minimum 70 CRI.
   Requires the use of a step down transformer when combined with MS/DIM, MS/X or DIMRF.
- 4. May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
- 5. Factory installed.
  6. 2L is not available with MS, MS/X or MS/DIM at 347V or 480V. 2L in AE-02 through AE-04 requires a larger housing, normally used for AE-05 or AE-06. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.
  7. Not available with LumaWatt wireless sensors.
- 8. Extended lead times apply. Use dedicated IES files for 3000K and 6000K when performing layouts. These files are published on the Galleon luminaire product page on the website 9.1 Amp standard. Use dedicated IES files for 530mA and 700mA when performing layouts. These files are published on the Galleon luminaire product page on the website.

18. One required for each Light Square

- 10. Consult factory for more information.
  11. Replace E1 with specific voltage.
  12. The FSIR-100 accessory is required to adjust parameters.
- 13. Not available with HA option.
- 14. LumaWatt wireless sensors are factory installed only requiring network components RF-EM1, RF-GW1 and RF-ROUT1 in appropriate quantities. See www.cooperlighting.com for LumaWatt application information.
  15. Not available with house side shield (HSS).
  16. Only for use with SL2, SL3, SL4 and AFL distributions. The Light Square trim plate is painted black when the HSS option is selected.
- 17. This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your Eaton's Cooper Lighting business representative for additional details



#### DESCRIPTION

Entri LED features a classic and stylish design with the added benefits of solid state lighting technology, offering outstanding uniformity and energy savings. Using Cooper Lighting's proprietary LED LightBAR™ technology and AccuLED optical systems, Entri LED offers designers vast versatility in system design, function and performance. Use Entri LED for wall mount architectural lighting applications and egress lighting requirements. UL/cUL listed for use in wet locations.

Catalog #	Туре
Project	
Comments	Date
Prepared by	

#### SPECIFICATION FEATURES

Construction HOUSING: Heavy wall, one-piece, die-cast aluminum construction for precise tolerance control and repeatability in manufacturing. Integral extruded aluminum heat sink provides superior thermal heat transfer in +40°C ambient environments. Housing and heat sink are designed to offer various options for down lighting, up lighting or a combination of both up and down. FACEPLATE / DOOR: One-piece die-cast aluminum construction. Captive, side hinged faceplate swings open via release of one (1) flush mount die-cast aluminum latch on housing side panel. Door closure and seal is ensured through a robust and positive retention bale latch which upon closing can be heard through distinct sound. GASKET: One-piece molded silicone gasket mates perfectly between the door and housing for repeatable seal. Silicone wire way plug on housing back wall seals incoming electrical leads to prevent moisture and dust entry. LENS: Uplight lens is impact resistant, 5/32" thick tempered frosted glass sealed to housing with continuous bead silicone gasket. Downlight lens is LED board integrated acrylic overoptics, each individually sealed for IP66 rating. HARDWARE: Stainless steel mounting screws and latch hardware allow access to electrical components for installation and servicing.

#### **Optics**

**DISTRIBUTION: Primary** downlight distribution offers a choice of six (6) patented, highefficiency AccuLED Optics™, that maximize light collection and direction distribution onto the application region. Each optical lens is precision manufactured via injection-molding, then precisely arranged and sealed on the board media. Optional uplight LED distribution features a diffuse soft glow for enhancing architectural scenes or accentuating structural features. LEDs: High output LEDs, 50,000+ hours life at >70% lumen maintenance, offered standard in 4000K (+/- 275K) CCT and nominal 70 CRL

#### Electrical

DRIVER: LED drivers are potted and heat sunk for optimal performance and prolonged life. Standard drivers feature electronic universal voltage (120-277V/50-60hz), greater than 0.9 power factor, less than 20% harmonic distortion and feature ambient temperature range of +40°C (104°F) down to minimum starting temperature of -30°C (-22°F). Shipped standard with Cooper Lighting proprietary circuit module designed to withstand 10kV of transient line surge. Options to control light levels, energy savings and egress capabilities (battery pack and separate circuit) are available. All LED LightBARs™ and drivers are mounted to a primary mounting plate and are easily replaced by use of quick disconnects for ease of wiring.

#### Mounting

JUNCTION BOX: Standard with zinc plated quick-mount junction box plate that mounts directly to 4" J-Box. LightBARS mount facing downward. Fixture slides over mounting plate and is secured with two (2) stainless steel fasteners. Mounting plate features a onepiece EPDM gasket on back side of plate to firmly seal fixture to wall surface, forbidding entry of moisture and particulates. Optional mounting arrangements utilize a die-cast mounting adaptor box to allow for LED battery pack, surface conduit and through branch wiring. Entri LED is approved for mounting on combustible surfaces.

#### Finish

Housing is finished in 5-stage Super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. LightBAR™ cover plates are standard white and may be specified to match finish of luminaire housing. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult Outdoor Architectural Colors brochure for a complete selection.

#### Warranty

Entri LED features a five-year limited warranty.



## **ENV** ENTRI LED **ROUND REVEALS**

1 - 2 LightBARs Solid State LED

ARCHITECTURAL WALL LUMINAIRE



#### CERTIFICATION DATA

UL/cUL Listed ISO 9001 IP66 LightBARs **ARRA** Compliant LM79 / LM80 Compliant

#### **ENERGY DATA Electronic LED Driver**

>0.9 Power Factor

<20% Total Harmonic Distortion 120-277V/50 & 60hz, 347V/60hz, 480V/60hz

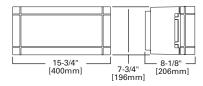
-30°C Minimum Temperature 40°C Ambient Temperature Rating

SHIPPING DATA

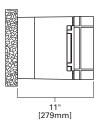
Approximate Net Weight: 16 lbs. (7.3 kgs.)



#### **DIMENSIONS**



#### CONDUIT MOUNT / BATTERY BACK BOX





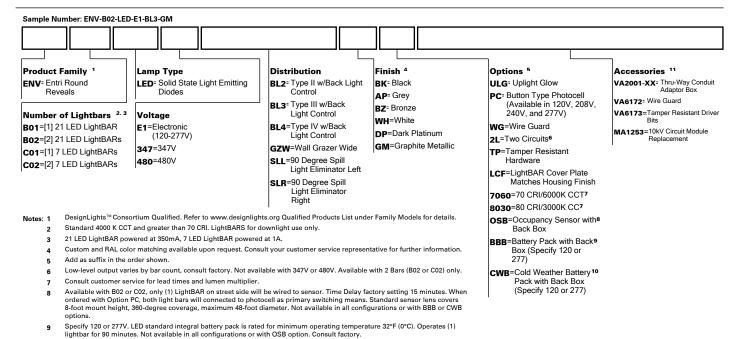
#### POWER AND LUMENS BY BAR COUNT

Number of			D	ISTRIBUTI	ON			
LightBARs	Power [Watts]	Current @ 120V [A]	Current @ 277V [A]	BL2	BL3	BL4	GZW	SLR/ SLL
		•	7 [	ED LIGHT	BAR			
C01	27	0.23	0.13	1,770	1,625	1,720	1,725	1,571
C02	54	0.46	0.21	3,540	3,249	3,440	3,450	3,142
			21	LED LIGHT	TBAR			
B01	27	0.23	0.13	2,177	1,998	2,115	2,122	1,932
B02	51	0.43	0.20	4,354	3,996	4,231	4,244	3,865

#### LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.04
15°C	1.03
25°C	1.00
40°C	0.96

#### ORDERING INFORMATION



Specify 120 or 277V. LED cold weather integral battery pack is rated for minimum operating temperature -4°F (-20°C). Operates (1)

lightbar for 90 minutes. Not available in all configurations or with OSB option.

Order separately, replace XX with color suffix.

COOPER Lighting

## **PORTFOLIO™**

6 inch LED recessed medium beam downlight with 50° cut off specially designed for LED technology. Two-stage reflector system produces smooth distribution with excellent light control and low aperture brightness. Lumen packages include 1000 and 1500 delivered lumens with color temperatures of 2700K, 3000K, 3500K, 4000K. Suitable for commercial construction and exceeds high efficacy requirements (with designated trims) for T24. Energy Star qualified.

Catalog #	Туре
Project	
Comments	Date

#### SPECIFICATION FEATURES

#### **Lower Shielding Reflector**

Self-flanged, spun .050" thick aluminum lower reflector in combination with a lensed upper optical chamber provides superior lumen output with minimal source brightness. Available in all Portfolio Alzak® finishes.

#### **Trim Retention**

Lower reflector is retained with two torsion springs holding the flange tightly to the finished ceiling surface.

#### Plaster Frame / Collar

New Construction Housing: Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2".

#### **Universal Mounting Bracket**

Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

#### **Junction Box**

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring.

#### Thermal

Extruded aluminum heat sink conducts heat away from the LED module for improved performance and longer life.

#### I FD

LED system contains a plurality of high brightness white LED's combined with a high reflectance upper reflector and convex transitional lens producing even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses, Flexible disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80 or 90 CRI.

#### Driver

Combination 120-277V 0-10V or 120V trailing edge phase cut driver provides flicker free dimming from 100% to 10%. Optional 1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

#### **Environmental**

Fixture should not be operated in ambient temperatures above 40° C.

#### **Code Compliance**

Thermally protected and cULus listed for protected wet locations. IP66 rated when used with IP66 gasket kit accessory. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Non-IC rated -Insulation must be kept 3" from top and sides of housing. RoHS Compliant. Photometric testing completed in accordance with IES LM 79 standards. LED life testing completed in accordance with LM 80 standards.

#### Warranty

5 year warranty on LED housings, LED Modules and LED Trims.



## LD6A10 LD6A15 6LM

1000 Lumen LED

1500 Lumen LED

6-Inch

Medium Beam Downlight
New Construction

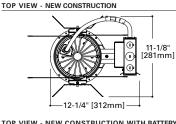


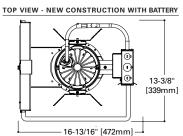


Qualified and Compliant. Refer to the ENERGY STAR® Qualified Product List and CEC (T24) Appliance Database for listings.

		9/16" 7mm
5-5/8" [143mm] - 6-3/8" [162mm] -		

– 7" [176mm] –







ENERGY DATA		
Sound Rating: Class A standards		
Operating Temper	ature: 40°C (104°F)	
1500 Lume	en D010TE	
(Values at non-dir	nming line voltage)	
Minimum Starting Ten	nperature: -30°C (-22°F)	
EMI/RFI: FCC Title 47 CFR,	Part 15, Class B (Consumer)	
Input Voltage: U	NV (120V - 277V)	
	al input 120/277 VAC & 100% of put Power)	
Input Power: 22.4W	THD: <20%	
120V Input Current: .12A	277V Input Current: .09A	
Maximum Non-IC Ambient Continuous		
Input Frequency: 50-60Hz		
1000 Lumen D010TE		
(Values at non-dimming line voltage)		
Minimum Starting Temperature: -30°C (-22°F)		
EMI/RFI: FCC Title 47 CFR,	Part 15, Class B (Consumer)	
Input Voltage: U	NV (120V - 277V)	
Power Factor: >0.90 (at nominal input 120/277 VAC & 100% of Rated Output Power)		
Input Power: 14.1W	THD: <20%	
120V Input Current: .12A	277V Input Current: .06A	
Maximum Non-IC Ambient Continuous		
Input Frequency: 50-60Hz		

EXAMPLE: LD6A15D010TE ERM6A15835 6LM0LI=6" LED Medium Beam Reflector, 1500 Lumen 3,500 K Color with Universal 120 - 277V, 0 - 10 Driver

Housing	Lumens <sup>1</sup>	Driver	Options	Power Module	CRI	Color
LD6A=6"Aperture, LD6ACP=6"Aperture	10=1000 Lumens (15=1500) Lumens	D010TE=120-277V 0-10V 10% Dimming or Trailing Edge 120V Dimming D010TR=120-277V 0-10V 10% Dimming or Leading Edge 120V Dimming D5LT=Fifth Light* (DALI) Dimming 1-100% DE010=1 to 100% Dimming, 120-277V 50/60Hz, 0-10V DL3=1 to 100% Dimming, 120-277V Lutron* Hi-Lume, Ecosystem or 3 Wire DLT=1 to 100% Dimming, 120V Lutron* Hi-Lume Forward Phase Dimming DMX=DMX Dimming 1-100%	EMBOD=Bodine® Emergency Module with Remote Test Switch IEMBOD=Bodine® Emergency Module with Integral test Switch³	ERM6A10=6", 1000 Lumen Module for Medium Beam Reflector ERM6A15=6", 1500 Lumen Module for Medium Beam Reflector	8=80 CRI 9=90 CRI	27=2700° K 30=3000° K 35=3500° K 40=4000° K 27CP=2700° K, Chicago Plenum 30CP=3000° K, Chicago plenum 35CP=3500° K, Chicago Plenum 40CP=4000° K, Chiago Plenum
Reflector		Finish	Options		Accessor	ioo

6LM0=6" Medium Reflector, Polymer Trim Ring 6LM1=6" Medium Reflector,

Self-flanged 6LM0E=6" Medium Reflector, PolymerTrim Ring for use with IEM Integral Emergency Option 6LM1E=6" Medium Reflector, Self-flanged for use with IEM Integral Emergency Option

LI=Specular Clear H=Semi-Specular Clear WMH=Warm Haze **G**=Specular Gold WH=Wheat WHH=Wheat Haze GP=Graphite GPH=Graphite Haze

B=Specular Black W=Gloss White

6LM0, 6LM0E Only BB=Black Baffle WB=White Baffle

HB26=C-channel Bar Hanger, Self-flanged Only WF=White Painted Flange

26" Long, Pair HB50=C-channel Bar Hanger, 50" Long, Pair RMB22=Wood Joist Bar Hanger, 22" Long, Pair **H277**=277 To 120V Step Down

Transformer, 300VA **H347**=347 To 120V Step Down Transformer, 75VA

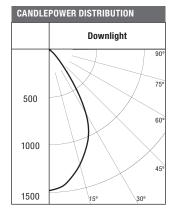
H347200=347 to 120V Step Down Transformer, 200VA Housings, Specify

HSA6=Slope Adapter for 6" Aperture Housings, Specify Slope
TRM6=MetalTrim Ring, Specify Color<sup>2</sup>
TRR6=RimlessTrim Ring<sup>2</sup>

DT6=DecoTrim<sup>2</sup> LGSKT6IP66= P66 Gasket Kit

- Notes: 1 Nominal Lumens will vary depending on selected color, driver and reflector finish.
  - 2 Order trim with polymer trim ring (Consult specification sheet for color ordering information and options).3 Not available with Chicago Plenum.

#### **PHOTOMETRICS**



Test Number	P98227
LD6A15D010TE	ERM6A835 6LM1H
Lumens	1347
Efficacy	61.8 Lm/W
Watts	21.8
ССТ	3500K
sc	0.92

CONE OF LIGHT				
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter		
5'5"	48	5.0		
7'	/30	6.5		
8'	22	7.0		
9'	/ 18	8.0		
10'	14	9.0		
12' /	10	11.0		

CANDELA	IABLE
Degrees Vertical	Candela
0	1468
5	1436
15	1238
25	969
35	468
45	116
55	25
65	8
75	2
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	%Fixture
0-30	919	68.2
0-40	1213	90.1
0-60	1336	99.2
0-90	1347	100
90-180	0	0
0-180	1347	100

LUMINANCE	
Average Candella Degrees	Average 0° Luminance
45	10749
55	2889
65	1158
75	378
85	0

EMBOD MU	LTIPLIER
1000 Lumen=	.64
1500 Lumen=	.45

CANDLEPOWER DISTRIBUTION		
	Downlight	
	90°	
750	75°	
730		
	60°	
1500		
	45°	
2250	15° \30°	

Lumen Output Bodine:Emerge	ency .4	45

Test Number	P97379
LD6A15D010TE	ERM6A835 6LM1LI
Lumens	1509
Efficacy	69.2 Lm/W
Watts	21.8
CCT	3500K
SC	0.83

CONE OF LIGHT						
Distance Fixture to Lighted Plane	Initial Footcandles at Nadir	Beam Diameter				
5'5"	69	4.0				
7'	/42	5.6				
8'	32	6.0				
9'	25	7.0				
10'	21	8.0				
12'	14	9.5				

CANDELA TABLE			
Degrees Vertical	Candela		
0	2018		
5	2098		
15	1908		
25	1097		
35	381		
45	29		
55	4		
65	1		
75	0		
85	0		
90	0		

ZONAL LUMEN SUMMARY						
Zone	Lumens	%Fixture				
0-30	1225	1225 81.2				
0-40	1471	97.5				
0-60	1507	99.9				
0-90	1509	100				
90-180	0 0					
0-180	1509	100				

LUMINANCE			
Average Candella	Average 0°		
Degrees	Luminance		
45	2676		
55	455		
65	154		
75	0		
85	0		

EMBOD MULTIPLIER	
1000 Lumen= .64	
1500 Lumen= .45	

#### **PHOTOMETRICS**

CCT Multiplication Factors		CCT [K]	Multiplier from 3500K	80 -> 90 CRI
80 CRI	1000 Lumen	2700	0.93	
		3000	0.99	
		3500	1.00	
		4000	1.01	
00 0111	1500 Lumen	2700	0.93	
		3000	0.99	
		3500	1.00	
		4000	1.01	
90 CRI	1000 Lumen	2700	0.88	0.79
		3000	0.95	0.80
		3500	1.00	0.84
		4000	1.03	0.86
	1500 Lumen	2700	0.88	0.79
		3000	0.94	0.79
		3500	1.00	0.84
		4000	1.03	0.86

